

## CLAIMS

What is claimed is:

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1. A computer implemented method of mapping a graphical user interface of an application, comprising:
- identifying a first set of windows that are active on the desktop of the computer;
- performing an action on a graphical user interface object in a window of the application;
- 10 identifying a second set of windows that are active on the desktop of the computer;
- comparing the first set of windows to the second set of windows to identify a new window in the second set; and
- adding the new window to a map of the graphical user interface of the application.
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2. The method of claim 1, further comprising analyzing the map to determine if the new window is already present in the map.
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3. The method of claim 2, further comprising adding a shortcut to the map if the new window is already present in the map, wherein the shortcut references the new window that is already present in the map.
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4. The method of claim 2, wherein the new window is determined to already be present in the map if similarities between the new window and the window in the map are above a similarity threshold.
5. The method of claim 4, wherein the similarity threshold is a percentage of graphical user interface objects that the new window and the window in the map have in common.

6. The method of claim 2, wherein the new window is determined to already be present in the map if the new window and the window in the map have the same name.

7. The method of claim 2, further comprising receiving input from a user that two or more windows of the map that have been determined as different should be considered the same window.

8. The method of claim 2, further comprising receiving input from a user that two or more windows of the map that have been determined as the same should be considered different windows.

9. The method of claim 1, further comprising receiving input from a user that one or more graphical user interface objects should be ignored when generating the map.

10. The method of claim 1, further comprising receiving input from a user specifying an amount of time to wait after performing the action before identifying the second set of windows.

11. The method of claim 1, further comprising displaying the map on the computer.

12. The method of claim 1, wherein the map is hierarchical and includes windows, graphical user interface objects and actions.

13. The method of claim 1, wherein the graphical user interface objects are buttons, sliders, check boxes, or tab controls.

14. The method of claim 1, wherein the actions are left mouse click, right mouse click, left mouse double click, or keystrokes.

15. A computer program product for mapping a graphical user interface of an application, comprising:

computer code that identifies a first set of windows that are active on the desktop of the computer;

computer code that performs an action on a graphical user interface object in a window of the application;

computer code that identifies a second set of windows that are active on the desktop of the computer;

computer code that compares the first set of windows to the second set of windows to identify a new window in the second set;

computer code that adds the new window to a map of the graphical user interface of the application; and

a computer readable medium that stores the computer codes.

16. The computer program product of claim 15, wherein the computer readable medium is a CD-ROM, floppy disk, tape, flash memory, system memory, hard drive, or data signal embodied in a carrier wave.

17. A system for testing applications, comprising:

an application mapper that programmatically executes an application to generate a map of the graphical user interface of the application;

a script generator that utilizes the map to generate scripts that include instructions to test the application; and

an application tester that executes the scripts to test the application.

18. The system of claim 17, wherein the application mapper generates the map by recursively performing actions on the graphical user interface of the application to identify new windows and adding the new windows to the map.

19. The system of claim 17, wherein the map is hierarchical and includes windows, graphical user interface objects and actions.

20. The system of claim 19, wherein the graphical user interface objects are buttons, sliders, check boxes, or tab controls.

5 21. The system of claim 19, wherein the actions are left mouse click, right mouse click, left mouse double click, or keystrokes.

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